

WORK STUDENTS DO RUBRIC	(5)	(3)	(1)
ENGAGING PRIOR KNOWLEDGE Instructional materials include strategies that help students to: <ul style="list-style-type: none"> ▪ Activate (think about) their current understanding of a science concept, ▪ Make explicit (e.g., write down) their understanding of a science concept. 	The materials include many opportunities to engage prior knowledge.	The materials include some opportunities to engage prior knowledge.	The materials include few opportunities to engage prior knowledge.
METACOGNITION Instructional materials include strategies that help students to: <ul style="list-style-type: none"> ▪ Recognize the goals of the chapter/unit as well as their own learning goals, ▪ Assess their own learning, ▪ Reflect, over time, on what and how they have learned. 	The materials include many opportunities to promote metacognition.	The materials include some opportunities to promote metacognition.	The materials include few opportunities to promote metacognition.
ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY Instructional materials provide opportunities for students to develop the abilities necessary to do scientific inquiry by: <ul style="list-style-type: none"> ▪ Asking and identifying questions and concepts to guide scientific investigations, ▪ Designing and conducting scientific investigations, ▪ Using appropriate technology and mathematics to enhance investigations, ▪ Formulating and revising explanations and models, ▪ Analyzing alternative explanations and models, ▪ Accurately and effectively communicating results, ▪ Generating additional testable questions. 	The materials include many opportunities to develop the abilities of scientific inquiry.	The materials include some opportunities to develop the abilities of scientific inquiry.	The materials include few opportunities to develop the abilities of scientific inquiry.
UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY Students understand that the work scientists do includes: <ul style="list-style-type: none"> ▪ Inquiring about how physical, living, or designed systems function, ▪ Conducting investigations for a variety of reasons, ▪ Utilizing a variety of tools, technology, and methods to enhance their investigations, ▪ Proposing explanations based on evidence, logic, and historical and current scientific knowledge, ▪ Communicating and collaborating with other scientists in ways that are clear, accurate, logical, and open to questioning. 	The materials include many opportunities to help students understand the work scientists do.	The materials include some opportunities to help students understand the work scientists do.	The materials include few opportunities to help students understand the work scientists do.
ACCESSIBILITY Instructional materials accessible to students address/consider: <ul style="list-style-type: none"> ▪ Varied learning abilities/disabilities, ▪ Special needs (e.g., auditory, visual, physical, speech, emotional), ▪ English language proficiency, ▪ Cultural differences, ▪ Different learning styles, ▪ Gender. 	The materials are consistently accessible to diverse learners, providing opportunities for all students to achieve.	The materials are often accessible to diverse learners, providing some opportunities for all students to achieve.	The materials are rarely accessible to diverse learners, providing limited opportunities for all students to achieve.

Based on the work of K-12 Alliance/WestEd/BSCS, copyright © 2010